Application No.: 10/576,583 Submission under 37 CFR §1.114

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<u>REMARKS</u>

Please reconsider the application in view of the foregoing amendments and the following

remarks.

**Status of Claims** 

Claims 1-8 are pending in the present application. Claim 1 is herein amended, which

finds its support in paragraph [0036] of the present specification. No new matter has been

entered.

Claim Rejections - 35 U.S.C. §103

The Examiner has rejected claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over

Sumitomo Bakelite Co., Ltd. (JP 2003-033991) in view of Matsushita Electric Industrial Co., Ltd.

(JP 2002-365624).

Applicants have amended claim 1 to incorporate the limitation wherein an elastic

modulus of a cured resin material, which forms the cured resin layer, is from 0.1 to 1.3 GPa to

further distinguish it from the combination of the cited references. The support for this

amendment maybe found in paragraph [0036] of the present specification.

Independent claim 1

Claim 1, as amended, is drawn to ... An optical resin sheet comprising a cured resin

layer containing glass fiber, wherein an elastic modulus of a cured resin material which forms

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the cured resin layer is from 0.1 to 1.3 GPa, the ratio of the elastic modulus of the glass fiber to

the elastic modulus of the cured resin material, which forms the cured resin layer, is 25 or more,

and the elastic modulus of each of the glass fiber and the cured resin material is a storage elastic

modulus measured at 25°C.

As noted above, the Examiner has rejected claims 1-8 under 35 U.S.C.103(a) as being

unpatentable over Sumitomo 'Bakelite Co., Ltd (JP2003-03399/hereinnfter referred to as

Sumitomo) in view of Matsushita Electric Industrial Co., Ltd (JP2002-36562/hereinafter referred

to as Matsushita).

Matsushita discloses the elastic moduli of the cured resin materials. However, all values

of the elastic moduli disclosed by Matsushita are out of the range of 0.1-1.3 GPa as recited in

claim 1.

Specifically, the elastic moduli disclosed in the paragraph [0006] of Matsushita are as

follows:

Polyether sulfone: 2.5 x 10 <sup>9</sup>Pa(2.5 MPa)

Polycarbonate : 18 x 10<sup>9</sup> Pa (1.8-3.2 MPa)

Acrylate resin :  $1.8-3.2 \times 10^9 \text{Pa}$  (1.8-3.2 MPa)

Epoxy resin :  $3.0 \times 10^{9} Pa$  (3.0 MPa).

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Furthermore, the amended feature of claim 1 namely, an elastic modulus of a cured resin

material, which forms the cured resin layer, is from 0.1 to 1.3 GPa, is neither disclosed nor

suggested by Sumitomo and Matsushita, alone or in combination. Thus, the invention in claim 1

is not obvious in view of the afore-cited references.

Furthermore, the elastic modulus of the cured resin material varies depending on the

manufacturing conditions, i.e., it does not have a constant value.

Specifically, as in the examples of the present specification, the elastic modulus of the

epoxy resin is set forth, however the examples 1-3 and the comparative examples 1 and 2 make it

apparent that different curing conditions cause the obtained cured epoxy materials respectively to

have a different elastic modules (refer to Table 1).

For not only the epoxy resin but also other resins, the fact, in which cured materials

having a different elastic modulus are obtained depending on the manufacturing method, would

be obvious for one of ordinary skill in the art from the technical common knowledge.

Furthermore, for glass also, the elastic modulus does not necessarily remain constant, but

varies greatly depending on chemical composition, the manufacturing method etc.

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For at least the foregoing reasons, even if the combination of Sumitomo and Matsushita

describe the kind of resins, they do not describe the elastic moduli as recited in claim 1. The

afore-cited references do not disclose or suggest the two ranges of the numeric value as recited in

claim 1. That is, an elastic modulus of a cured resin material satisfying the range from 0.1 to 1.3

GPa, while at the same time, the ratio of the elastic modulus of the glass fiber to the elastic

modulus of the cured resin material is 25 or more.

Therefore, as noted above, since neither Sumitomo Bakelite nor Matsushita discloses the

features of claim 1, Applicants respectfully submit that combination of these two references

would not yield the invention in claims 1-8. Accordingly, Applicants request that the rejection

under 35 U.S.C. 103 be withdrawn by the Examiner.

**Conclusion** 

The Claims have been shown to be allowable over the prior art. Applicants believe that

this paper is responsive to each and every ground of rejection cited in the Office Action dated

August 21, 2009, and respectfully request favorable action in this application. The Examiner is

invited to telephone the undersigned, applicants' attorney of record, to facilitate advancement of

the present application.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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RYR/bam